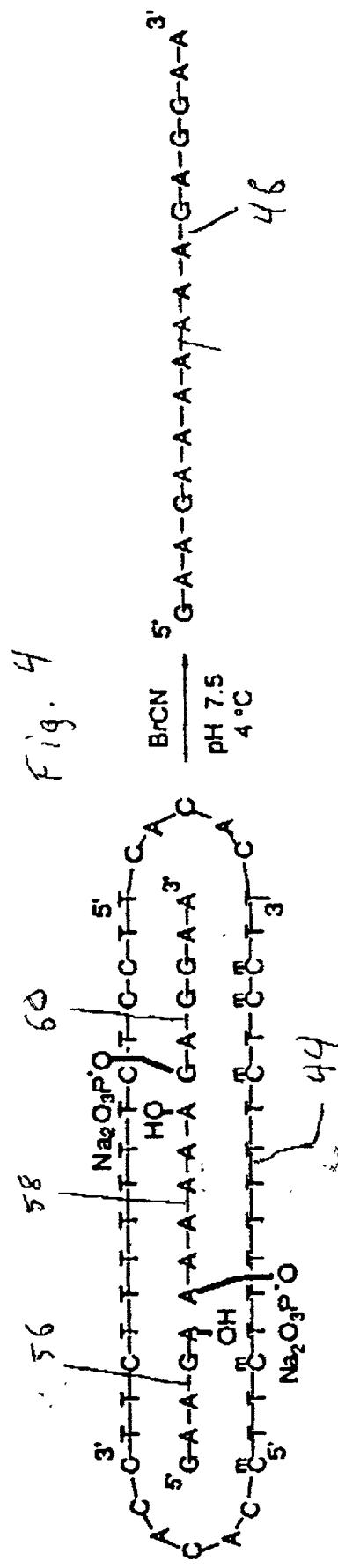
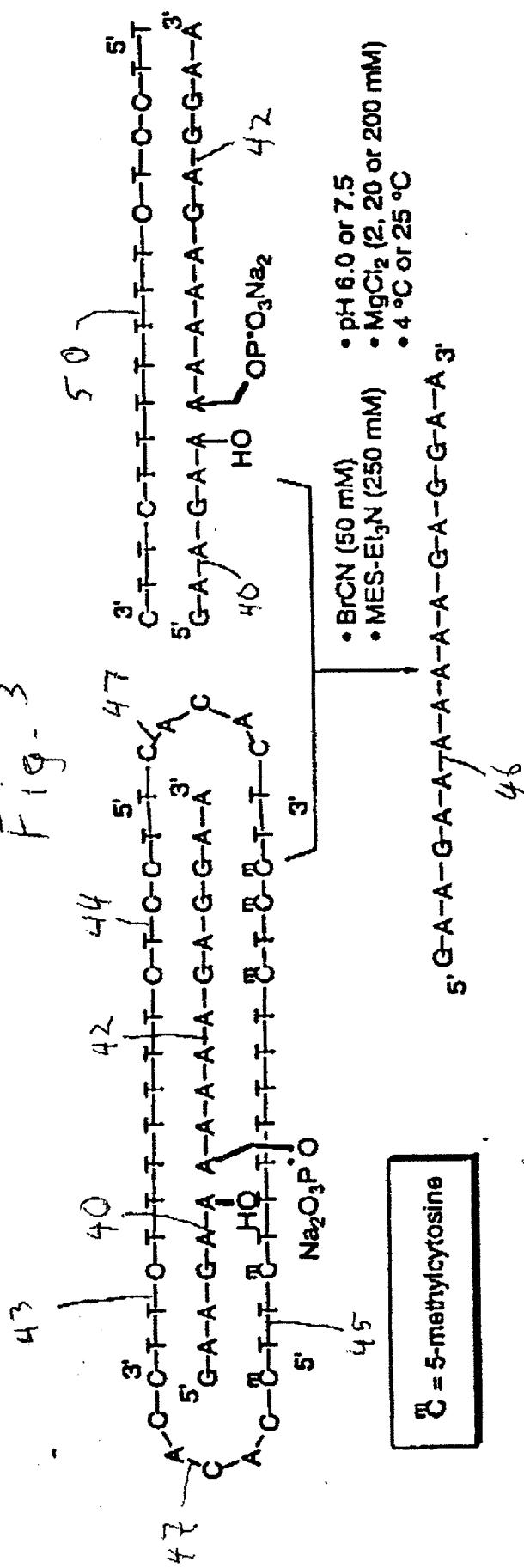


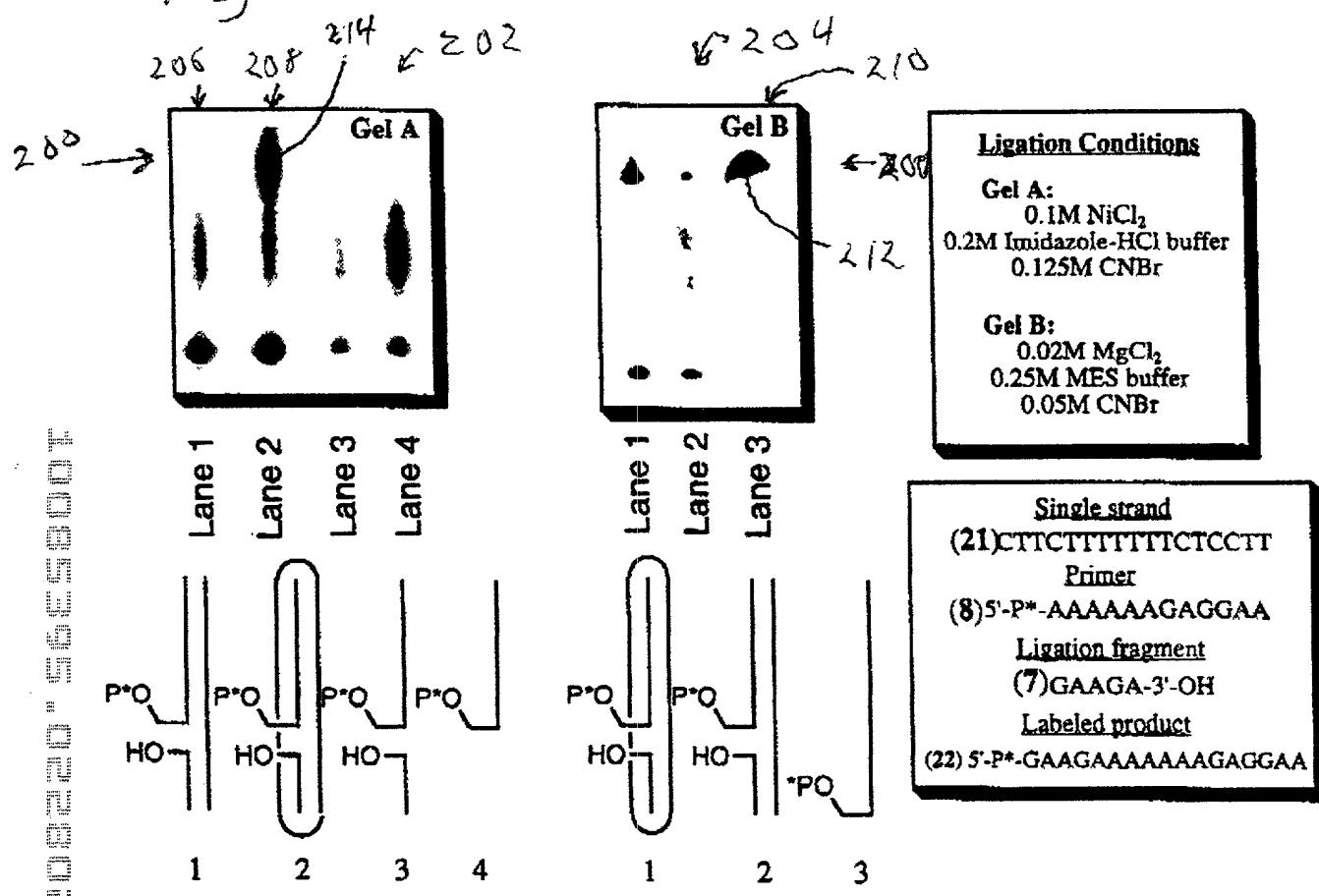
1



Scheme 4.

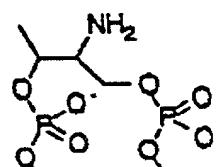
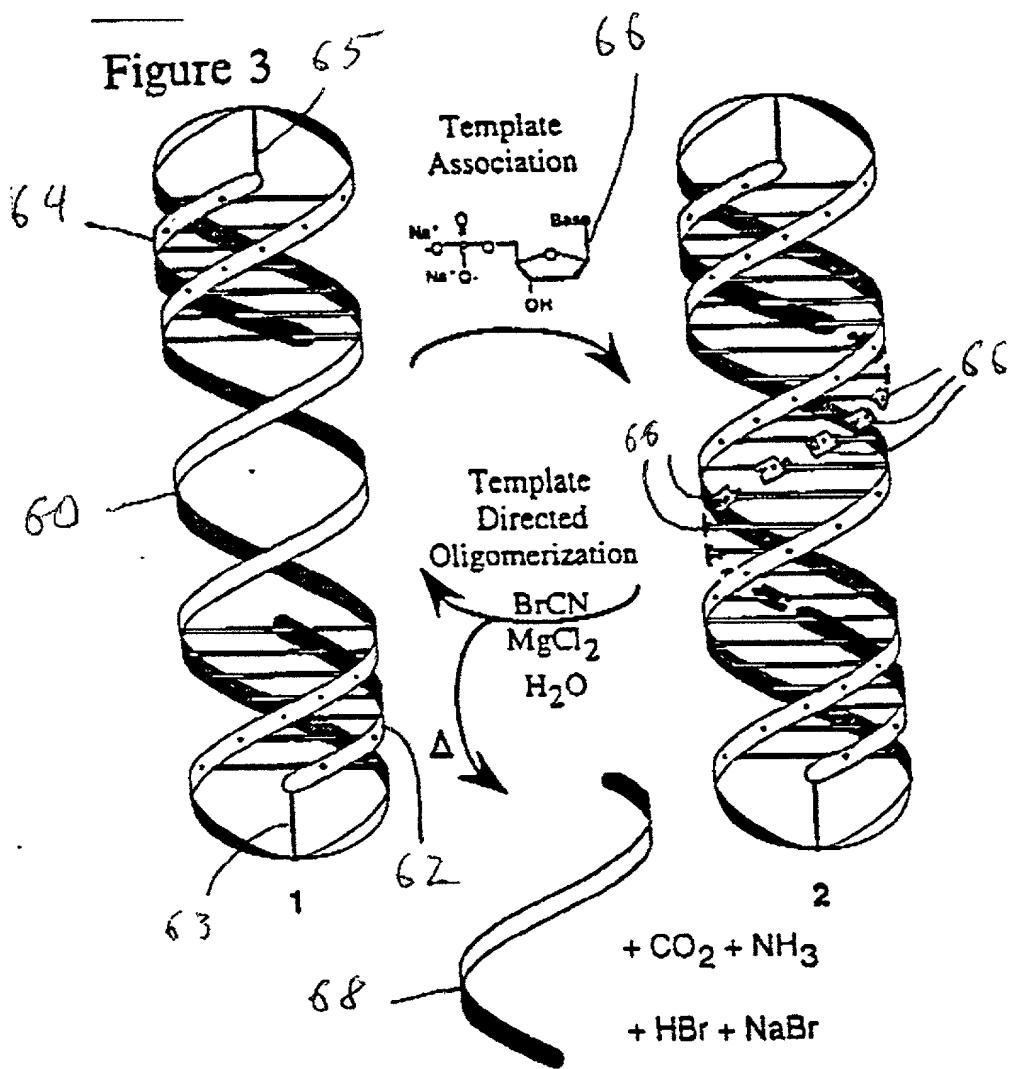


Fig. 5



Autoradiography of PAGE analysis of the ligation of 5-mer 7 with 5'-32 P labeled 12-mer 8. Gel A shows the results of the reaction run with NiCl_2 in imidazole-HCl buffer, while Gel B shows the result of the reaction run with MgCl_2 in MES buffer. Lanes 2 (Gel A) and 1 (Gel B) show the migration of the reaction mixture from ligation on circular DNA template 1. Lanes 1 (Gel A) and 2 (Gel B) compare the results of the ligation reaction on the corresponding single-strand DNA template X. Lane 3 (Gel A) shows the results of the ligation reaction with no template present. Lane 3 (Gel B) shows the migration of the expected full length ligated product which was independently synthesized and 5'-32 P labeled.

Fig. 6



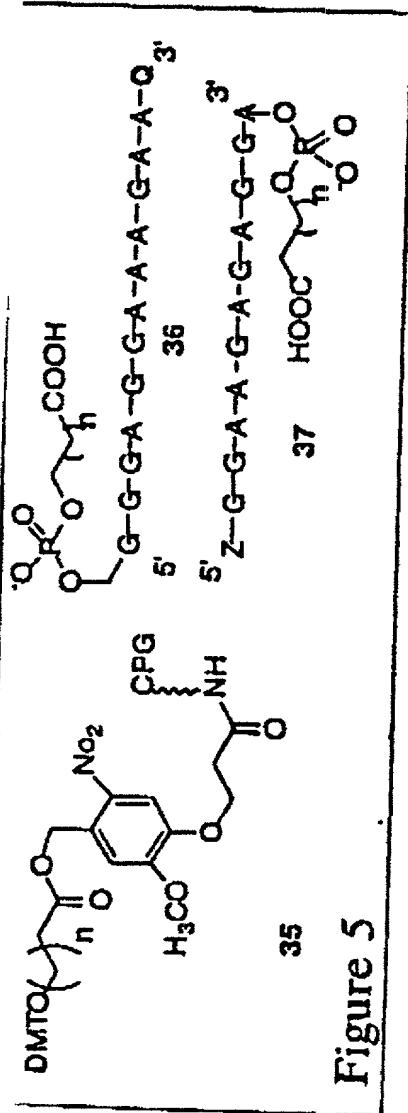


Figure 5

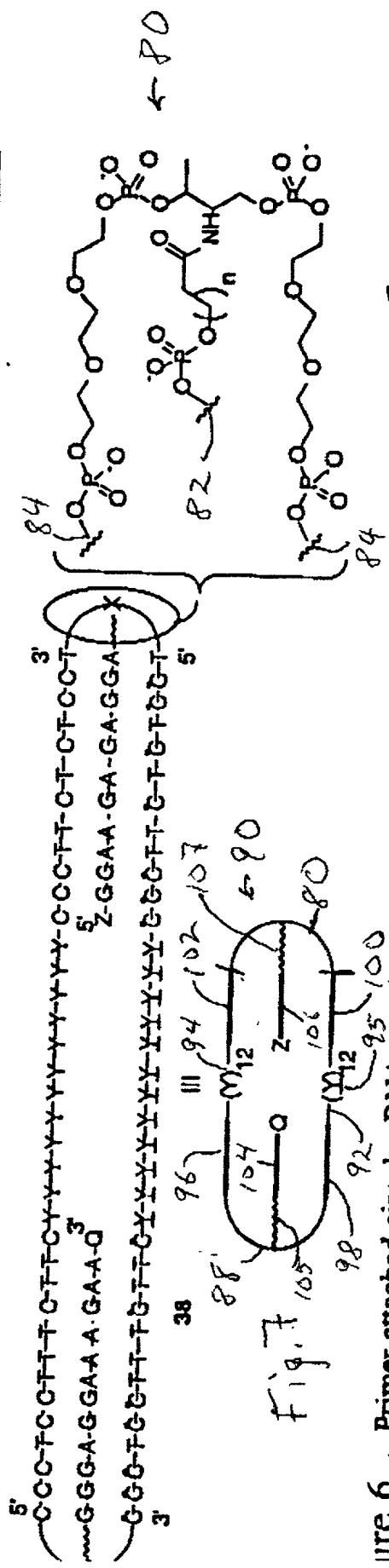
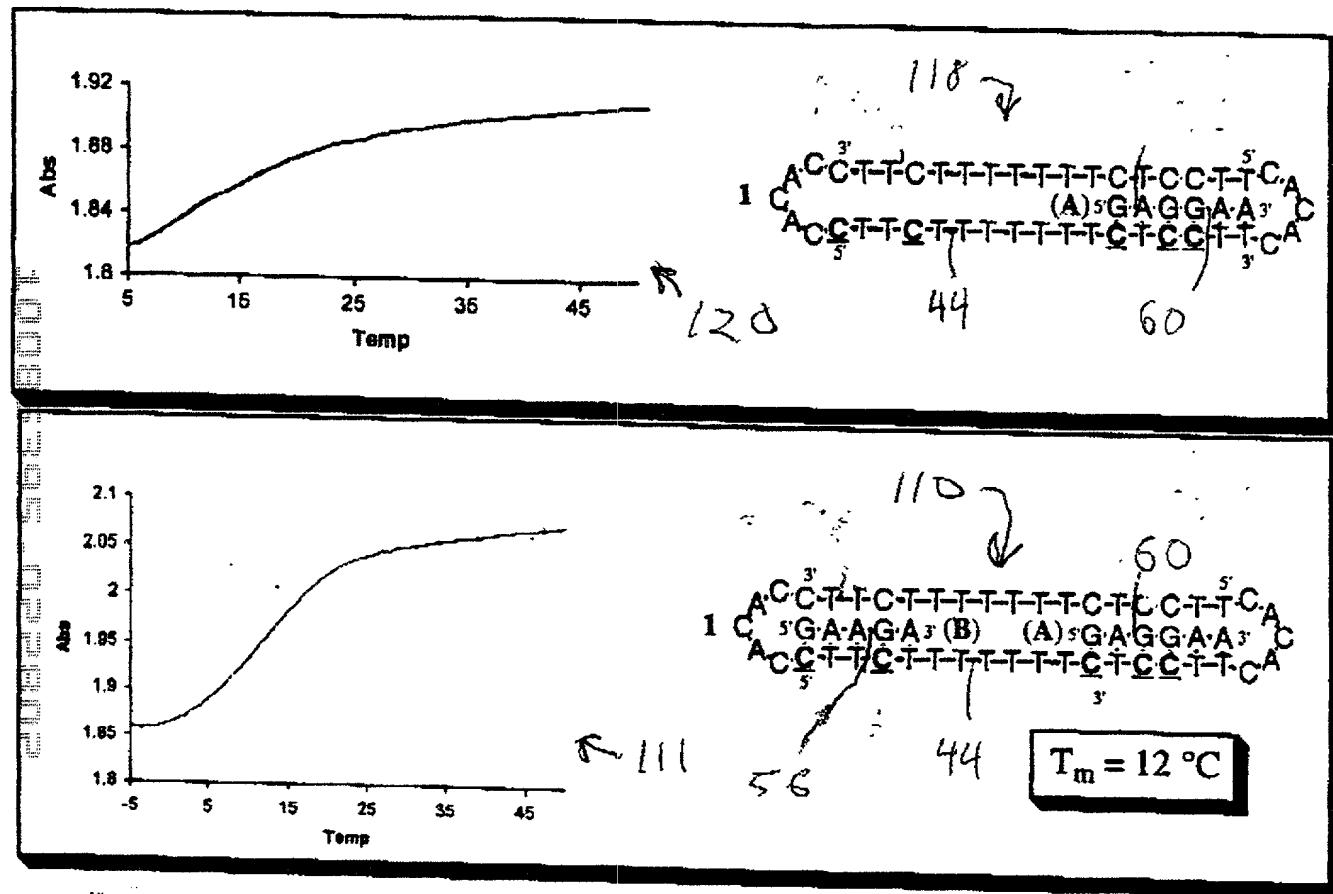


Figure 6 . Primer attached circular DNA template. See Scheme 11 for Q and Z designation.

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Melting analysis of circular template 1 with primer A (—) and primers A and B (—).

Fig. 9